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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/306,040	05/06/1999	CLARENCE C. RUDD	RCA88958	2950

7590

08/28/2002

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EXAMINER

MEHRA, INDER P

ART UNIT

PAPER NUMBER

2663

DATE MAILED: 08/28/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/306,040

Applicant(s)

RUDD ET AL.

Examiner

Inder P Mehra

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 7-14 and 16 is/are rejected.
- 7) ☐ Claim(s) 4, 6, 15, 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. The disclosure is objected to because of the following informalities:

-Refer to specifications page 1, lines 5-9. The application numbers and relative filing dates of U.S Patent applications which are co-pending and commonly assigned are not specified.

Appropriate information is required.

- Refer to disclosure "transmitter 23 and receiver 24" on page 5 line 9. These numbers do not match with those in fig. 2

Appropriate correction is required.

- Refer to page 6 lines 16-17. "speech IC 35" and "a handfree circuit 35" are shown with same serial number "35" in fig. 2.

Appropriate correction is required.

- refer to page 7 line 15. "6 bit operand 2" should be 64 bit operand 2" in fig. 2.

Appropriate correction is required.

- Refer to page 10 line 29 and page 11 lines 1 and 5, "fig. 9" should be "fig. 7".

Appropriate correction is required.

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- Refer to page 11 line 7. "fig. 2" should be "fig. 4".

Appropriate correction is required.

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

Regarding claims 2, 5, 13 and 16, the limitation "wherein said first time period is greater than said second time period" lacks antecedent basis in the specifications, refer to page 10 lines 4-17, wherein first time period is 11 ms. and second time period is 50 ms., in other words, first time period is *not* greater than second time period, also, refer to fig. 8 steps 805 and 809 respectively.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 5, 7-13, 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Turnbull et al** (US Patent No. 6,088,362), hereinafter Turnbull in view of **Wilder et al** (US Patent No. 5,128,928), hereinafter Wilder.

Regarding claims 1, 7 and 11, Turnbull discloses in reference to figs. 1 and 2, a multi-line key telephone system which is not having "key service unit" (KSU 10) (or decentralized system) and provides uninterrupted telephone services (automatic service), refer to col. 4 lines 6-14 and abstract; comprising the steps of:

- signaling data is transmitted in the first time slot, refer to col. 8 lines 45-46; out of band data signal sent during first time slot, refer to col. 10, lines 60-64;
- adjusting the clock 100 depending upon the time slot utilization (determining whether data are being transmitted in a time slot and adjusting to a first time period), refer to col. 9 lines 5-8;
- signaling the called slave station to establish its status as a slave station assigned to a second time slot of the TDM frame synchronized to the first time slot of the master station to effect inter-station frame synchronization (adjusting time slot to a second time period if data are not being transmitted in said time slot), refer to col. 3 lines 24-25 and col. 12 lines 21-25;

Turnbull does not disclose expressly adjusting time slot to a second time period if data are not being transmitted in the time slot;

Wilder discloses the system can be adjusted to provide additional slots for the movement of voice data or additional slots for other functions depending upon the particular system configuration, (adjusting time slot to a second time period if data are not being transmitted in said time slot), refer to col. 13 lines 18-21;

A person of ordinary skill in the art would have been motivated to employ Wilder's

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digital radio telephone system into Turnbull's key telephone system without common control in order to introduce the capability of adjusting second time period.. The suggestion/motivation to do so would have been to establish inter station frame synchronization. It would have been obvious to a person of ordinary skill in the art that when a new communication session is established , the data from different sources can be combined over successive time slots in a single frame on a real time basis.

Regarding claims 2, 5, 13 and 16, Turnbull discloses in reference to figs. 1 and 2, the process of claims 1, 7 and 11, as explained above, comprising the steps of:

Turnbull discloses an inactive interval (no data) having zero channels or time slots, refer to col. 8 lines 67 through col. 9 lines 1-6; all subsequent packet headers cause the receiver to adjust the clock 100 depending upon the time slots in use, refer to col. 9 lines 2-6, (first time slot period to be shorter than the second time period, as disclosed in the specifications, refer to specs page 10 lines 4-17, first time period is *not* greater than second time period, also, refer to fig. 8 steps 805 and 809 respectively;

It would have been obvious to one skilled in the art to use shorter time slots because if there is no data transmission, the use of short time slots saves bandwidth.

Regarding claims 3, 8-10, 12 and 14, Turnbull discloses adjusting (increasing or decreasing the time slot, as recited in claims 8-10, 12) the clock 100 depending upon the time slot utilization (particular type of data, as recited in claims 3, 8-9 and 14 or no data, as recited in claim 10), refer to col. 9 lines 5-8;

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Turnbull does not disclose expressly the type of data;

Wilder discloses type of data (voice data or other functions), refer to col. 13 and lines 19-21;

A person of ordinary skill in the art would have been motivated to employ Wilder's digital radio telephone system into Turnbull's key telephone system without common control in order to introduce the capability of adjusting time period of time slot. The suggestion/motivation to do so would have been to optimize time slot utilization. It would have been obvious to a person of ordinary skill in the art that when a new communication session is established, the time slot utilization can be improved or reduced depending upon the type of data from different sources on a real time basis.

Allowable Subject Matter

5. Claims 4, 6, 15 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Robinson et al (US Patent No. 6,122,291) discloses a communication system negotiations based on bandwidth used.

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- Coviello et al (US Patent No. 4,631,367) discloses multi-line telephone system having no key service unit and wherein local indicator lamps and paging functions are provided.

Conclusion

7. Any enquiry concerning this communication should be directed to Inder Mehra whose telephone number is (703) 305-1985. The examiner can be normally reached on Monday through Friday from 8:30AM to 5:00 PM.

If attempt to reach the examiner by telephone is unsuccessful, the examiner's supervisor, Chau Nguyen, can be reached on (703) 308-5340. Any enquiry of a general nature of relating to the status of this application or processing should be directed to the group receptionist whose telephone number is (703) 305-4700.

8. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, DC. 20231

Or faxed to (703) 872-9314.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal drive, Arlington, VA, sixth floor (Receptionist).

Inder Mehra
Inder Mehra 8/26/02

August 25, 2002

Chau T. Nguyen
CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600